



294-86pctus.ST25
SEQUENCE LISTING

<110> Voorberg, Johannes

<120> Method For Diagnosis and Treatment of Haemophilia A Patients With An Inhibitor

<130> Sequence Nos 1-59 for 294-86 PCT/US

<140> 09/674,752

<141> 2000-12-29

<150> PCT/NL99/00285

<151> 1999-05-07

<150> EP 98201543.0

<151> 1998-05-08

<160> 59

<170> PatentIn version 3.1

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 35 40 45

Gly Gly Ile Ile Pro Ile Phe Gly Ser Thr Lys Tyr Ala Gln Lys Phe
 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Gly Ser Thr Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Asn Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys
 85 90 95

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Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

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Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe
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Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
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35 40 45

Gly Trp Ile Ser Ile Tyr Ser Gly Asn Thr Asp Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Arg Arg Thr Ala Tyr
65 70 75 80

Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

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35 40 45

Gly Trp Ile Ser Ala Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu
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Ala Arg

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35 40 45

Gly Trp Ile Ser Ala Tyr Asn Gly Asn Thr His Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg val Thr Met Thr Thr Asp Thr Ser Arg Arg Thr Ala Tyr
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Ala Arg

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 20 25 30

Asp Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Ile Ser Ile Tyr Ser Gly Asn Thr Asp Tyr Ala Gln Lys Phe
 50 55 60

Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Arg Arg Thr Ala Tyr
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Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
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Ala Arg

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20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asn Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

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85 90 95

Ala Arg

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Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Asn Ala Gly Phe Ala Gln Lys Phe
50 55 60

Lys Gly Arg Leu Thr Leu Thr Arg Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

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Met Glu Leu Arg Asn Leu Glu Ser Glu Asp Thr Ala Val Tyr Tyr Cys
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Ala Arg Cys Asp Thr Thr Leu Leu Ile Trp Phe Gly Pro Ala Pro Tyr
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20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
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Ala Lys Asp

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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Gly Asp Tyr
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Ala Ile His Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Val
35 40 45

Ser Gly Val Thr Trp Ser Gly Thr Thr Ile Gly Phe Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65 70 75 80

Leu Tyr Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95

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Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
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20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Lys

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Ser Leu Arg Leu Ser Cys val Asp Ser Gly Leu Thr Phe Ser Ser Tyr
 20 25 30

Gly Met His Trp val Arg Gln Ala Pro Gly Ala Gly Leu Glu Trp val
 35 40 45

Ala val Ile Ser Tyr Asp Gly Asn Asp Lys Tyr Tyr Ala Asp Ser val
 50 55 60

Lys Gly Arg Phe Ala Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Thr Ile Glu Asp Thr Ala val Tyr Tyr Cys
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Ala Lys Asp Leu Ile Glu Ser Asn Ile Ala Glu Ala Leu Trp Gly Gln
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Gly Thr Leu val Thr val Ser Ser
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
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Ser Met Asn Trp val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp val
 35 40 45

Ser Ser Ile Ser Ser Ser Ser Ser Tyr Ile Tyr Tyr Ala Asp Ser val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
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Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala val Tyr Tyr Cys
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Ala Arg

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Glu Val Gln Leu Val Lys Ser Gly Glu Gly Leu Val Lys Pro Gly Gly
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 20 25 30

Asp Ile His Trp Val Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Ser Ile Ser Ser Gly Gly Asn Tyr Ile Asp Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Asn Asn Val Val Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Phe Cys
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Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Asn Ala Gly Phe Ala Gln Lys Phe
 50 55 60

Lys Gly Arg Leu Thr Leu Thr Arg Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Arg Arg Leu Glu Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Cys Asp Thr Thr Leu Leu Ile Trp Phe Gly Pro Ala Pro Tyr
 100 105 110

Tyr Asp Ser Trp Gly Gln Gly Thr Leu Val
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 Ala Ile His Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Val
 35 40 45
 Ser Gly Val Thr Trp Ser Gly Thr Thr Ile Gly Phe Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Tyr Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
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 Ala Leu Pro Tyr Ile Asn Ser Ser Asn Tyr Arg Arg Gly Val Ala Ala
 100 105 110
 Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
 115 120 125

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20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Ala Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Ser Tyr Asp Gly Asn Asp Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Ala Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Thr Ile Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

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 Ala Lys Asp Leu Ile Glu Ser Asn Ile Ala Glu Ala Leu Trp Gly Gln
 100 105 110

Gly Thr Leu Val Thr Val Ser Ser
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 20 25 30

Asp Ile His Trp Val Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Val

Ser Ser Ile Ser Ser Gly Gly Asn Tyr Ile Asp Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Asn Asn Val Val Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Phe Cys
 85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Ser Ala Ala Thr Trp Arg Ala Phe
 100 105 110

Asp Ile Trp Gly Arg Gly Thr Met Val Thr Val Ser Ser
 115 120 125

<210> 50
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 <212> DNA
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<400> 50
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 gctgttcatt tgtagataga caacattgtt ggcgttgtct ctggagatgg tgaatcggcc 180
 cttcacagag tctgcgtagt ctatgtaatt accaccacta ctgatggatg agaccctc 240
 caggcccttc cctggagtct ggcggacca gtggatatca tatctcctga aggtgaatcc 300
 agaggctgca caggagagtc tcagggaccc cccaggcttg accaggcctt ccccagactt 360
 caccagctgc acctc 375

<210> 51
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 51
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 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser His
 20 25 30

Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Asp Ile Ile Pro Ile Leu Gly Thr Gly Asn Tyr Ala Gln Lys Phe

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50

55

60

Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Thr Leu Thr Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Glu Leu Asp Trp Phe Tyr Ile Trp Gly Gln Gly Thr Met Val Thr Val
100 105 110

Ser Ser

<210> 52
<211> 98
<212> PRT
<213> Homo sapiens

<400> 52

Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Lys

<210> 53
<211> 122
<212> PRT
<213> Homo sapiens

<400> 53

Glu Val Gln Leu Val Glu Ser Gly Gly Asp Leu Val Gln Pro Gly Gly
1 5 10 15

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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Gly Gly Arg Ser Gly Thr Thr Phe Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Val Tyr
65 70 75 80

Leu Glu Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Ile Tyr Tyr Cys
85 90 95

Ala Lys Arg Gly Arg Gly Gly Tyr Lys Tyr Tyr Gly Met Asp Val Trp
100 105 110

Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 54
<211> 342
<212> DNA
<213> Homo sapiens

<400> 54
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cctggacaag ggcttgagtg gatgggagac atcatcccta tccttggtac aggaaactac 180
gcacagaagt tccagggcag agtcacgatt accgcggacg agtccacgag cacagcctac 240
atggagctga gcaccctgac atctgaggac acggccgtgt attactgtga acttgactgg 300
ttctatatct ggggcccaagg gacaatggtc accgtgtcga gt 342

<210> 55
<211> 114
<212> PRT
<213> Homo sapiens

<400> 55
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser His
20 25 30

Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met

35

40

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45

Gly Asp Ile Ile Pro Ile Leu Gly Thr Gly Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Thr Leu Thr Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Glu Leu Asp Trp Phe Tyr Ile Trp Gly Gln Gly Thr Met Val Thr Val
100 105 110

Ser Ser

<210> 56
<211> 342
<212> DNA
<213> Homo sapiens

<400> 56
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ctcgtccgcg gtaatcgtga ctctgccctg gaacttctgt gcgtagtttc ctgtaccaag 180
gatagggatg atgtctccca tccactcaag cccttgtcca ggggcctgtc gcacccagct 240
gatagcatga ctgctgaagg tgcctccaga agccttgcaag gagaccttca ccgaggaccc 300
aggctttctt acctcagccc cagactgcac cagctgcacc tg 342

<210> 57
<211> 366
<212> DNA
<213> Homo sapiens

<400> 57
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tcctgtgcag cctctggatt cacccttagc aactttgcca tgagctgggt ccgccaggct 120
cccgggaagg ggctggagtg ggtcgcggct attggcggtga gaagtgggtac cacattctac 180
gcggactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacggtctat 240
ctggaaatga acagtctgag agccgaggac acagccattt attactgtgc gaaaagaggg 300
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tcgagt 366

<210> 58

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<211> 122
 <212> PRT
 <213> Homo sapiens

<400> 58

Glu Val Gln Leu Val Glu Ser Gly Gly Asp Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
 20 25 30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Ala Ile Gly Gly Arg Ser Gly Thr Thr Phe Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Val Tyr
 65 70 75 80

Leu Glu Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Ile Tyr Tyr Cys
 85 90 95

Ala Lys Arg Gly Arg Gly Gly Tyr Lys Tyr Tyr Gly Met Asp Val Trp
 100 105 110

Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120

<210> 59
 <211> 366
 <212> DNA
 <213> Homo sapiens

<400> 59
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 cccgcgccct cttttcgac agtaataaat ggctgtgtcc tcggctctca gactgttcat 120
 ttccagatag accgtgttct tggaattgtc tctggagatg gtgaaccggc ccttcacgga 180
 gtccgcgtag aatgtggtac cacttctacc gccaatagcc gcgaccact ccagcccctt 240
 cccgggagcc tggcggaccc agctcatggc aaagttgcta aaggtgaatc cagaggctgc 300
 acaggagagt ctcagggacc ccccaggctg taccaagtct ccccagact ccaccagctg 360
 cacctc 366